GrummanWorld

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O'Brien Named Chief Executive Officer

On Thursday, January 21, Grumman Corporation announced that John O'Brien, president and chief operating officer, was named chief executive officer at a meeting of the board of directors. O'Brien succeeds Jack Bierwirth, who has been chief executive officer since 1974.

The board also elected O'Brien to succeed Bierwirth as chairman on August 1, 1988, when Bierwirth will retire.

O'Brien will serve as both chairman and president. A chief operating officer will not be named. Grumman has an office of the chairman that consists of three vice chairmen, one responsible for finance, another for technology and the third for development. Primary operating responsibilities are assigned to the presidents of 11 divisions, each of which is organized to serve a specific market.

"When Jack Bierwirth came to Grumman our total net worth was only about $67 million," said O'Brien. "Today it's more than $780 million. That progress is just one indication of what's been achieved under his leadership. All of us are grateful that he will continue to play a role in the policy direction of the company."

O'Brien's entire business career has been with Grumman. He joined Grumman in 1954 as a flight test analyst. In 1970, he was elected administrative vice president of Grumman Aerospace, and in 1975, senior vice president, Administration and Resources.

He was named executive vice president for internal operations in 1979, and was appointed president of Grumman Data Systems Corporation in 1983, a post he kept when that Grumman subsidiary became a division.

In January of 1986, he was elected to the board of directors. He was elected president and chief operating officer of Grumman Corporation later that year.

Bierwirth joined Grumman in 1972 as vice president-finance. Later in the year, he was elected Grumman president, just in time to lead the company in negotiations with the U.S. Navy on the F-14 financing. A few years earlier, before inflation began to soar beyond control, Grumman and the Navy had signed a fixed-price production contract for the F-14. The company was losing millions on the program. Bierwirth contacted then-Navy Secretary John Warner and worked out an agreement. The result: Grumman produced Lot 5, 48 more planes, under the original terms in exchange for a renegotiated contract to cover subsequent production runs.

Bierwirth was elected chief executive officer in 1974 and chairman of the board in 1976.

One of the biggest events in Bierwirth's career occurred in the fall of 1981, when Grumman defeated a takeover attempt by Texas-based LTV. "That really was an extraordinary event," Bierwirth told Newsday a few years ago. "I was told by everybody that the likelihood of Grumman surviving was very, very small. You had to start with a feeling of trying to stop a hurricane by waving your arms."

The storm was over eight weeks later, and Grumman kept its independence.■

(Jack Bierwirth talks more about the change of command on the back page.)

Change of Command. *On January 21, Grumman President John O'Brien was named chief executive officer at a meeting of the board of directors. He succeeds Chairman Jack Bierwirth, who has been chief executive officer since 1974. When Bierwirth retires August 1, O'Brien will become chairman. (Newsday Photo)*

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Late Radar Delivery Won't Hurt Joint STARS

Delivery of the complex Joint STARS radar will be delayed because of a longer than expected design phase.

The radar, which is being developed by Norden Systems, was scheduled to be on board for the first flight of the Joint Services Target Attack Radar System (Joint STARS) E-8A aircraft. The flight is scheduled for March 31.

"The initial flight testing of the aircraft was not scheduled to include operating radar," says Marty Dandridge, Melbourne Systems vice president for Programs. "It is delayed and we are disappointed but it won't affect the long term goals of the program."

Grumman Melbourne Systems Division, the Joint STARS prime contractor, did not have plans to test the radar during the first flight. That flight was designed to test aircraft-related systems. The radar was only to be on board for weight and integration requirements.

After the aircraft tests in April, Melbourne Systems will do planned antenna structural flight tests in May, then begin navigation, communication and data link testing.

"We'll install the radar in the aircraft in November and start testing it in December," Dandridge says. "We worked out a rescheduling of activities with the Air Force that at present has no long-term impact on the program."

Grumman wants quality and not haste in delivery of the radar, he says. "We want a good radar system, as opposed to a radar system delivered on time that won't work. We feel the juice is worth the squeeze."

In addition to the radar, the Joint STARS effort has two other main parts.

"The software development job is a very big one. There are very complex criteria. But when we compare it to industry standards, we feel very good about where we are." The preliminary design review will be completed in April.

However, it has been reported that the Air Force is

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Late Radar Delivery Won't Hurt Program

(Continued from page 1)
considering putting Joint STARS into an aircraft other than the E-8A. The Joint STARS plane is a converted, used Boeing 707. Those the Air Force would buy must have less than 50,000 flight hours at the time of purchase.

When the service originally chose this aircraft, fuel costs were higher and the world's airlines were not using 707s heavily, according to Dandridge. The supply of these planes was expected to be plentiful and at the right price.

"Things changed," says Dandridge. "Fuel costs dropped and operators started using them more." That cut the potential supply. In addition, the service decided it would need 20 planes, twice the number it originally planned to procure.

Melbourne Systems, in response to a request from the Air Force Electronics Systems Division, is evaluating new versus used aircraft costs. Whether the Air Force will go to another large aircraft is being investigated and it's too early to tell, says Dandridge. "Life cycle costs will drive the decision."■

Plane Trains Bombs. *Soon, a single Mk-80 bomb with inertial guidance will hang from each weapons pylon on an A-6E and other attack aircraft. The plane will feed target location data to each bomb before it is dropped.*

Entry Deadline Is March 4 For '88 Photo Contest

All Grummanites are invited to enter the 1988 Public Affairs photography contest.

Winning entries will be enlarged to 20 x 30 inches, framed, and then displayed in Corporate Headquarters for one year. Upon completion of the exhibit, the framed prints will be returned to the winners along with an 8 x 10 inch negative of the print.

Here are the contest rules:

★ All photographs must be in color.

★ Any size print can be submitted.

★ An original negative or slide of the submitted photo must be available upon request.

★ All photos must be clearly labeled with your name, mail stop, and telephone number.

Entry deadline is March 4; winners will be announced by March 20.

Mail entries to Monique Monaco, A33-GHQ. If you have any questions, call Monaco on (516) 575-2898.

Two Get New Posts In Allied

On January 21, the Grumman board approved the appointment of F. Clinton "Kip" Towl as president of Grumman Boats. It also approved the election of Bill Bruns as senior vice president, Grumman Emergency Products.

Towl joined Grumman in 1967. In 1986, he was named president of Allied's then-newly formed Long Life Vehicle Division. He most recently served as vice president and assistant to the president of Grumman Allied.

Bruns joined the company in 1966 and had a variety of assignments in Grumman Aerospace, including the F-14 Iran program. He moved to Emergency Products in 1972 and had most recently been its vice president—Marketing.■

New Retirees

On behalf of our fellow workers, *Grumman World* salutes the following Grummanites for their contributions to the company and wishes them well in their retirement. Those who have recently retired are:

Charles W. Spencer (7), John J. Costa (30), William J. McCarthy (30), Andree F. Fogel (121), Raymond J. Pfisterer (106), James A. Sweeney (20), Dominic V. Abbatiello (2), Jean R. Esquerre (GHQ), Marie Miller (15), Mark J. Roemer (18), Francis X. Stratton (14).

Grumman Competing To Give 'Dumb' Bombs The Smarts

The Electronics Systems Division is part of a team developing an inexpensive guidance device to give standard iron bombs a missile-like accuracy.

The division's Guided Weapon Systems group is working under a subcontract to Northrop's Precision Products Division in Norwood, Massachusetts. The Air Force is the contracting service for this joint Air Force/Navy program called Inertial Guidance Technology Demonstration (IGTD). A similar award was granted to a Boeing/Kearfott team.

An attack aircraft loaded with Mk-80 general purpose bombs usually flies straight at its target, releases its load of "iron bombs" and runs. "Inertially-aided munitions, or 'smart bombs,' will give aircraft a better chance of survival in a hostile environment," says Charles Dragowitz, director of Missile Systems for the Guided Weapon Systems group.

The modification would let the bomber's aircrew attack a target from safer and different directions as well as make the bombs more accurate. The plane's guidance and targeting systems would give the bombs information as to where they are in relation to the target. Once dropped, the bombs would guide themselves to the target.

The guidance system is nothing new. Making it inexpensive and putting it in the tail cone of a Mk-82, -83 or -84 bomb — 500, 1,000 and 2,000 pound bombs, respectively — is the tough part.

It's a problem of weights, balance and low cost.

"The Air Force doesn't want to have to aerodynamically requalify a new shape. We also have specific weight ranges to stay within," says Tom O'Brien, manager of Business Development.

The tail cone of a Mk-80 iron bomb is made of metal and has four fixed fins designed to make the bomb spin. But it is empty, and that creates a design problem.

"The new tail cone has to have the same shape and the bomb has to have the same center of gravity," O'Brien says.

"With the addition of the guidance unit and the actuation system that will move the fins, we're adding weight, so we're switching to an inexpensive, lighter material for the tail cone," says Dragowitz.

As part of the Phase 1 effort, the Northrop/Grumman team put its design through high speed wind tunnel and transfer alignment tests. Grumman must also design and build tail cones and fins for the Phase 2 drop tests. There will be 22 flight drop tests of the Northrop/Grumman configuration at the Naval Weapons Center at China Lake, California, and the Air Force Armament Division headquartered at Eglin Air Force Base, Florida.

During the second phase, Grumman will also develop the guidance and control laws that determine the flight of the bomb, perform simulation tests, and complete aircraft modifications on an A-6E and an F-4D for the flight tests of both teams' designs.

A full scale engineering development effort will probably start in 1990; it is expected to be an open competition.■

Grumman Wins Award To Design Space Robot

NASA has selected Grumman for a $1.5 million contract for the preliminary design of a Space Station service robot. Martin Marietta of Denver, Colorado, won an identical contract. Each company will design the robot competitively over the next nine months, then NASA will chose one firm to build it.

Officially called the Flight Telerobotic Servicer, the space robot will be used to help build the manned Space Station. Current plans call for the robot to be flown aboard the Space Shuttle on the first Space Station assembly flight in 1994.

"This contract is an important step in Grumman's ongoing activities leading to the development of advanced robotic systems," says Roy Olsen, Flight Telerobotic Servicer manager. "The company that ultimately builds the space robot will stand on the cutting edge of automation and robotics."

Initially, the robot will be capable of performing such tasks as installing and removing parts of the Space Station's truss, installing other fixtures on the truss, and performing routine inspection of station hardware.

Eventually, the robots will be used to perform more sophisticated duties, such as servicing unmanned research vehicles that will fly in formation with the station.

The robot will generally be operated in two distinctly different modes. In the teleoperated mode, the physical motions of the robot will be controlled by an astronaut. For example, the motion of an astronaut's hand will be reproduced by the robot's mechanical arms. The astronaut will work inside the space station while the robot is outside.

In the autonomous mode, the astronaut will transmit commands to the robot. The robot will be designed to respond, interpret and execute the orders. The astronaut will observe the robot's actions from inside the space station on a television screen, and communicate with the robot if necessary.

While the robot will be able to perform hazardous work outside the spacecraft, it will also free the astronauts from performing routine tasks.

The initial design and development is expected to cost over $200 million. Work under this contract will take place in Grumman's Bethpage facility.

Grumman is teamed with TRW of Redondo Beach, California; and Robotics Research Corp. of Cincinnati, Ohio. The following companies had bid on the preliminary design contract: Fairchild Space Co., Germantown, Md.; Lockheed Missiles & Space Co., Sunnyvale, Calif.; United Technologies Corp., Arlington, Va.; and Westinghouse Electric Co., Monroeville, Pa.■

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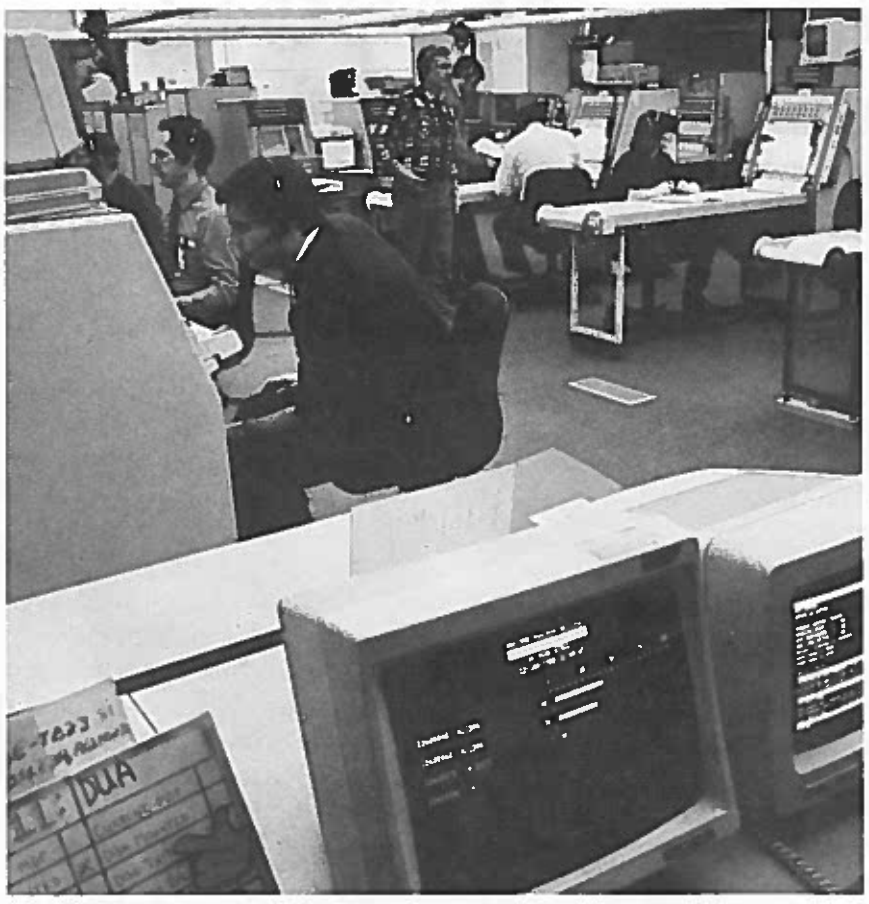
Norine Lyons
Director - Corporate Publications
575-3720

Kathleen Housley
Editor — 575-3293

Associate Editors
Bob Sample — *575-5118*
Susan Vassallo — *575-8999*
John Vosilla — *575-5119*

Bernadette Gately
Editorial Assistant — 575-4334



Up And Flying. *Business is booming since the advanced computer and radar tracking systems of the Automated Telemetry Station in Calverton, L.I., came on line. The Flight Test Department was running twice the weekly number of flights at the end of 1987 as it did at the beginning of last year. Engineers from Aircraft Systems and Data Systems spent the last three years installing and integrating the new systems. These were needed to flight test the avionics as well as the aircraft systems of F-14D and A-6F. What's more, the computers do calculations during a test that engineers previously spent days doing after one. (Photo by Gerry Costello)*

Down To Two In Army Space Weapon Competition

Grumman Space Systems Division has won a $4.2 million contract from the Army Strategic Defense Command.

The contract calls for advanced concept definition and technology identification (ACDTI) studies for the space-based neutral particle beam program. This is a two-year effort with an option for another two years of work. A team led by Boeing Aerospace won a similar contract.

The neutral particle beam weapon is being designed to destroy ballistic missiles before they re-enter the atmosphere. Under the Army contract, Grumman will further assess and evaluate target tracking, platform survivability, communications and booster requirements for a neutral particle beam weapon.

The neutral particle beam belongs to a class of space-based weaponry called directed energy. These weapons are technologically related to fusion reactors. Grumman is drawing on its years of experience of work on the Tokamak fusion reactor in Princeton, New Jersey.

The neutral particle beam weapon would focus so much energy on a missile that the target would either explode or its electronics would burn out, rendering it useless. The power of the beam has been likened to a lightning bolt. The neutral particle beam would also be able to discriminate between real targets and decoys.■

New Home

The Space Station Program Support Division has negotiated a lease for 172,000 square feet of space in a building in Reston, Virginia.

The terms of the agreement were not announced but the Grumman division has options that will allow it to occupy the space for more than 10 years. Grumman will start moving from its temporary location in Reston into the new building in October.

The Program Support Division is helping NASA manage the design and development of the space station. Grumman expects eventually to have about 900 people on the project. Now the staff is up to 296.

Fellowship Competition Is Open

Qualified Grummanites in Aircraft Systems, Aerostructures, Electronics Systems and Space Systems can apply for the 1988 Grumman Science and Engineering Masters Fellowship Program.

To enter the competition, you must have a bachelor's degree in a discipline related to the analysis, design or manufacture of aerospace or electronics products, and have worked full-time for Grumman since September.

The company pays the tuition, fees and the cost of books. Fellows also receive stipends to cover time off from work they may need to meet their scholastic commitments. They also pick and spend six months working in areas of the company that interest them.

Brochures are available from the Fellowship Office, A10-35, or your local administrator. Applications are available only at the Fellowship Office. Call (516)-575-2682. Application deadline is February 29.

Grumman Helps Develop An 'Un-Crackable' Network

McLEAN, Va. — Grumman Data Systems is helping the Jet Propulsion Laboratory develop security measures for an Army/Air Force intelligence computer network.

Grumman has a $1.2 million subcontract for the project. The Army version of the system will be known as the All Source Analysis System, while its Air Force twin will be called Enemy Situation Correlation Element. The Jet Propulsion Lab is the prime contractor. These decision support systems will be similar to the Navy's Oceans Surveillance Information System, which is in the latter stages of development and which Grummanites in McLean helped design.

Two Grummanites have been assigned full-time to the lab in Pasadena, California, while a half-dozen others are working on the project in McLean. Theirs is a quality assurance role: helping the lab define, track and review the security documentation provided by hardware and software suppliers.

"To a lot of people, the term computer security means locking computers in a special room and keeping unauthorized people out," says Dan Gambel, manager of Security Engineering at McLean. "While that is certainly important, designers must also create secure computer architectures and software. With such systems in place, even with a terminal, an unauthorized person finds it impossible to gain entry into a system."

The equipment for the system will be housed in a truck and will travel to the front lines, gathering, analyzing, and disseminating intelligence information. The system will be field tested this summer, with the first operational systems scheduled to go into the field in mid-1989.

Appropriate security documentation is necessary for the lab and all its other subcontractors to develop tamper-proof computer code, obtain government certification, and keep the overall program on schedule. Designers must grapple with the issue of security early in the development process.

"It's almost senseless to try to retrofit security," says Gambel. "This type of security is now a Defense Department standard, required in all of its acquisitions of computer hardware and software."

The Grumman team's first task was a generic threat analysis document, which offers a realistic picture of security threats to information systems in the combat environment. "You must first understand the threat to create security measures," says Gambel.

"The next task was to spell out in one cookbook-style document all of the governmental approval cycles for security measures," he adds. "It is called the security accreditation master plan." The document covers TEMPEST, a standard for emanation security; ADP, system design; and ComSec, short for communications security.

The project has helped Grumman develop expertise that has both military and domestic uses. "Any type of finance, welfare, security, or legal office needs some level of computer security when it automates," says Gambel. "And DoD-certified products work marvelously in those settings."■

Composite Picture. *Ellen Ballman, a chemical engineer for Manufacturing and Materials Engineering in Bethpage, holds a flask of resin used in making Gulfstream IV nacelles. She is doing a chromatographic analysis, which produces a readout of components in a substance, including impurities. Ballman's group runs tests to establish quality control guidelines. (Photo by Bob Settles)*

How To File Medical Insurance Claims

At the end of last year, Grummanites selected their medical coverage for 1988. If you chose Grumman/Travelers, there are certain steps you must follow in order to be reimbursed.

In 1988, the first time you submit a claim to Travelers you must complete a "First Notice of Claim" form (blue insurance form). These are available at all Employee Services offices and in the Insurance office in GHQ. Complete the employee section. Have your doctor complete the physician's section or you can just attach the doctor's original itemized bill advising the dates of treatment and diagnosis.

Make sure that you include your social security number; it is the key identifying number for claims.

Remember that you do not need a new claim form for each diagnosis. Travelers generally requires one claim form every six months. Subsequent claims should be submitted without a form as long as:

- It is an original itemized bill with the name of the employee and the employee's social security number.
- It states the name of the dependent patient (if any).
- The name "Grumman" is put on the bill.
- You include the date and description of services rendered and diagnosis for the condition.
- Keep in mind that cash register receipts, cancelled checks, and statements of balance due are not eligible as proof of medical expense.

You should generally submit claims as the expense is incurred. However, if you incur a number of small bills which would not satisfy the major medical deductible ($250) you should accumulate them until benefits are anticipated. Claims must be filed within one year from dates of service.

As in the past, your bills do not have to be paid before you file a claim. If you prefer, you can authorize benefits to be paid directly to the physician. Remember you must reach the $250 deductible before you authorize payments to your physician.

Claims take about four to six weeks to process.

If you have any questions about your FSA or medical insurance coverage in 1988, call Insurance, (516) 575-3146.■

Grummanite To Receive Aerospace Award

The American Institute of Aeronautics and Astronautics has named Grummanite Cecelia Jankowski the first winner of the Computer-Aided Engineering and Manufacturing Award.

The honor is given to an individual who has conceived, defined or developed an original concept leading to a significant advancement in the use of interactive computer graphics for conceptual design, computer imagery, or computer-aided design and manufacturing.

As team leader in the Automated Circuit Design department of Aircraft Systems, Jankowski developed a new interactive graphics entry signal flow. graph (SFG) simulation system. It is used for the design and verification of digital signal processing systems.

For example, when an engineer designs signal processing software to interpret an aircraft's radar return signals, the hardware carrying the software must be able to perform all the tasks the software may ask for and at the right speed.

Using the new system, conceptual models of hardware can be designed and tested with the software to insure its capabilities before being built. In addition, if a piece of hardware proves to be beneficial to use, the software design can be tailored to better match the equipment.

Jankowski will be an honored guest at a luncheon on February 10, during the AIAA Aerospace Engineering Conference held at the Los Angeles Hilton Hotel in California. She will be presented with a medal, certificate of citation and a rosette pin.■

Data Systems Gets Pact To Upgrade NASA Computer

New Cray X-MP/416 will boost capacity of the Engineering Analysis and Data System

HUNTSVILLE, Ala. — Grumman Data Systems will make a mighty computer system here more powerful than ever.

Data Systems has received a $10 million addition to an existing contract from the NASA Marshall Space Flight Center. The division will upgrade the Engineering Analysis and Data System (EADS).

The revised contract calls for the replacement of the system's Cray X-MP/44 supercomputer and 32 million word solid state storage device with the Cray X-MP/416 and a 256 million word solid state storage device. The Cray X-MP/416 offers four times the memory capacity of the X-MP/44.

EADS is a highly sophisticated computer system for over 2,000 engineers and scientists at Marshall. Grumman had a $50 million contract to install and integrate EADS, which went into operation in August, 1985. A team of 13 Grummanites now supports EADS at Marshall.

Supercomputers do scientific "number crunching" much faster than conventional computers — and are essential to the people at Marshall. Their fields of research typically require running enormous mathematical models and simulations. Tasks that used to take 100 hours to run can be run in 30 minutes to an hour with EADS.

"NASA wants the larger computer because the X-MP/44 wasn't keeping up with the workload," says Monte Cunningham, EADS program director. "The requirements had increased much faster than expected. One of the reasons for that increase was the redesign verification of the Space Shuttle booster. Marshall has been heavily involved in the redesign and testing."

The hardware and software are scheduled to be in place on April 4. Cray Research, Inc. will install the hardware. Cray and Grumman will team up to do the software programming and integration work.

Most of the work will be done or managed by Grumman's EADS support team. Grummanites on Long Island will provide assistance as requested on all facets of the installation.■

Heart Of EADS. *At the Marshall Space Flight Center in Alabama, Mike Johnson looks over reports for the system's Cray supercomputer. The Cray is being replaced by a more powerful model. (Photo by Bob Settles)*

Two Grummanites Win Trips To Bahamas

Bruce Abel travels frequently on company business. John Zoltowski never does.

Nonetheless, both men won trips to the Bahamas in Grumman's Travel Reservation Incentive Program (TRIP). Abel was the 1987 grand prize winner; Zoltowski, the semi-annual non-traveller winner.

"I'm quite pleased. This is the first thing I've won in a long time," said Abel, an engineering specialist for the Space Systems Division in Bethpage. The prize: a cruise for two to the Bahamas, which Abel plans to take in March.

A cost-saving business trip to Sunnyvale, California, made Abel eligible for the prize drawing. "A large group of us had to go on this particular trip," he said. "We saved money by taking a connecting flight."

Zoltowski works in Calverton as an installer of environmental control systems on EA-6B's and A-6s. In March, he will take his week-long trip for two to Paradise Island, Bahamas.

"I had heard of the TRIP program for business travellers, but I didn't know about the non-traveller prize. So it was quite a surprise," said Zoltowski. "They called me on December 23. It was like getting an extra Christmas present."

Three other Grummanites were also TRIP winners.

Denise Anderson, a subcontract administrator for Central Procurement-Corporate Services Division, won the quarterly drawing. Her prize is a week in Mexico City.

Ellen Hayhow of Space Systems, Building 25, Bethpage, won the secretaries' drawing. She opted for a $500 cash bonus.

December's monthly winner was Michael Hughes, a staff scientist for the Aircraft Systems Division in Plainsboro, New Jersey. His prize is a weekend for two at Phoenix, Arizona's The Pointe resort.

TRIP is open to all Grummanites. For more information about the program, call Janet Fiore, (516) 575-8612.

Way To Go. *Bruce Abel (L) and John Zoltowski (above) won big in the Travel Reservation Incentive Program. (Photos by Bob Settles and Gerry Costello)*

New Yorkers: Don't Be Over- Or Under-Taxed!

With the passage of the New York State Tax Reform and Reduction Act of 1987 as well as the Federal Tax Reform Act of 1986, you should review the number of withholding allowances you claim for your N.Y. State income taxes.

A new 1988 Form IT-2104 (Employee's Withholding Allowance Certificate) is now available in all Employee Services (ES) offices and should be filed with Personnel Records, E09-GHQ, as soon as possible.

If you do not change your withholding, you may have too much or not enough money withheld from your paycheck. If too little money is withheld, you may be subject to a penalty. From 1988 on, you must have 90 percent of your actual tax liability withheld in order to avoid a penalty. For this reason, you should be sure that your withholding is as accurate as possible.

Since the new Federal and State laws are phased in over a period of years, it is advisable to review your withholding situation annually.■

F. Amereno

L. Antonik

G. R. Bates

C. Benton

T. E. Block

C. S. Bobelis

W. J. Boese

J. W. Bradley

T. Cimaszewski

J. J. Conway

G. Costidis

J. Darty

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D. R. DiGangi

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J. W. Fletcher

J. A. Forde

T. M. Fry

M. J. Gabriel

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B. E. Hausser

P. L. Hugelmeyer

J. A. Ippolito

R. J. Kirkpatrick

T. Klemenko

H. C. Koenigsamen

E. H. Kropf

R. R. Kupczyk

J. W. Lamb

R. M. Lavelle

R. B. MacCarthy

Service Milestones

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Louis Raganella, Ft. Walton Beach, Aircraft Systems

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James J. Finnegan, Bethpage, Aircraft Systems
Martin Getzelman, Bethpage, Aircraft Systems
Joseph R. Gregg, Bethpage, Aircraft Systems
John G. Hedges, Hicksville, Aircraft Systems
Robert T. Irvine, Bethpage, Aircraft Systems
Adolf LoDuca, Bethpage, Aircraft Systems

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Russell Butler, Bethpage, Aircraft Systems
Paul Darby, Bethpage, Aircraft Systems
Robert J. Harris, Melville, Aircraft Systems
Alfonso J. Prisco, Bethpage, Aircraft Systems
Theodore A. Rybacki, Melville, Aircraft Systems
Frank Sticco Jr., Bethpage, Corporate Services
Claus G. Wendler, Great River, Electronics Systems
Jack Wolfenden, Bethpage, Corporate Services

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Joseph A. Giarraputo, Los Angeles, Aircraft Systems
James F. Grubel, Melville, Corporate Services
Eugene R. Piwowar,, Bethpage, Aircraft Systems
Edward V. Scicchitano, Bethpage, Aircraft Systems

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Louis Alfano, Bethpage, Corporate Services
Frank Amereno, Bethpage, Corporate Services
Leon Antonik, Melville, Aircraft Systems
Gary R. Bates, Calverton, Aircraft Systems
Carlton Benton, Bethpage, Corporate Services
Thomas E. Block, Calverton, Aircraft Systems
Charles S. Bobelis, Bethpage, Aircraft Systems
William J. Boese, Bethpage, Aircraft Systems
Joseph W. Bradley, Bethpage, Aircraft Systems

Readership Survey

We don't want to do all the talking. We'd like to know what you think about the things you see in these pages. Your comments, suggestions and complaints are welcomed. Please take a few minutes and give us your opinions.

Article	Great	Good	Poor	Didn't Read
O'Brien Named CEO (P. 1)	☐	☐	☐	☐
Joint STARS (P. 1)	☐	☐	☐	☐
Smart Bomb (P. 2)	☐	☐	☐	☐
Space Robot (P. 3)	☐	☐	☐	☐
EADS (P. 5)	☐	☐	☐	☐
Chairman's Letter (Back Page)	☐	☐	☐	☐

Suggestions For Future Articles:.....
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Comments About This Issue:.....
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Name.....
(Required If You Wish A Reply) **Ext.**.....
☐ Retiree **Division**.....

Mail to: Grumman World, A22-GHQ, 1111 Stewart Ave., Bethpage, N.Y. 11714

GDS Institute Offers '88 Courses

Grumman Data Systems Institute is offering the following courses this year:

Computer Service Technology—March 7.

Computer-Aided Drafting and Design—March 28.

Systems Analysis—April 18.

Automated Office Technology—September 6.

Court Reporting—September 19.

With the exception of Court Reporting, all the courses are covered by the Grumman Tuition Reimbursement Program.

For more information, call the Institute's admissions offices: Nassau Campus, 364-2055; Suffolk Campus, 467-6690.

L. I. Marsh

H. H. McGrail

J. N. McLaughlin

C. A. Monaco

P. A. Mulieri

W. R. Mulligan

A. S. Orenstein

R. L. Pratt

J. M. Purcell

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Next Issue: February 12

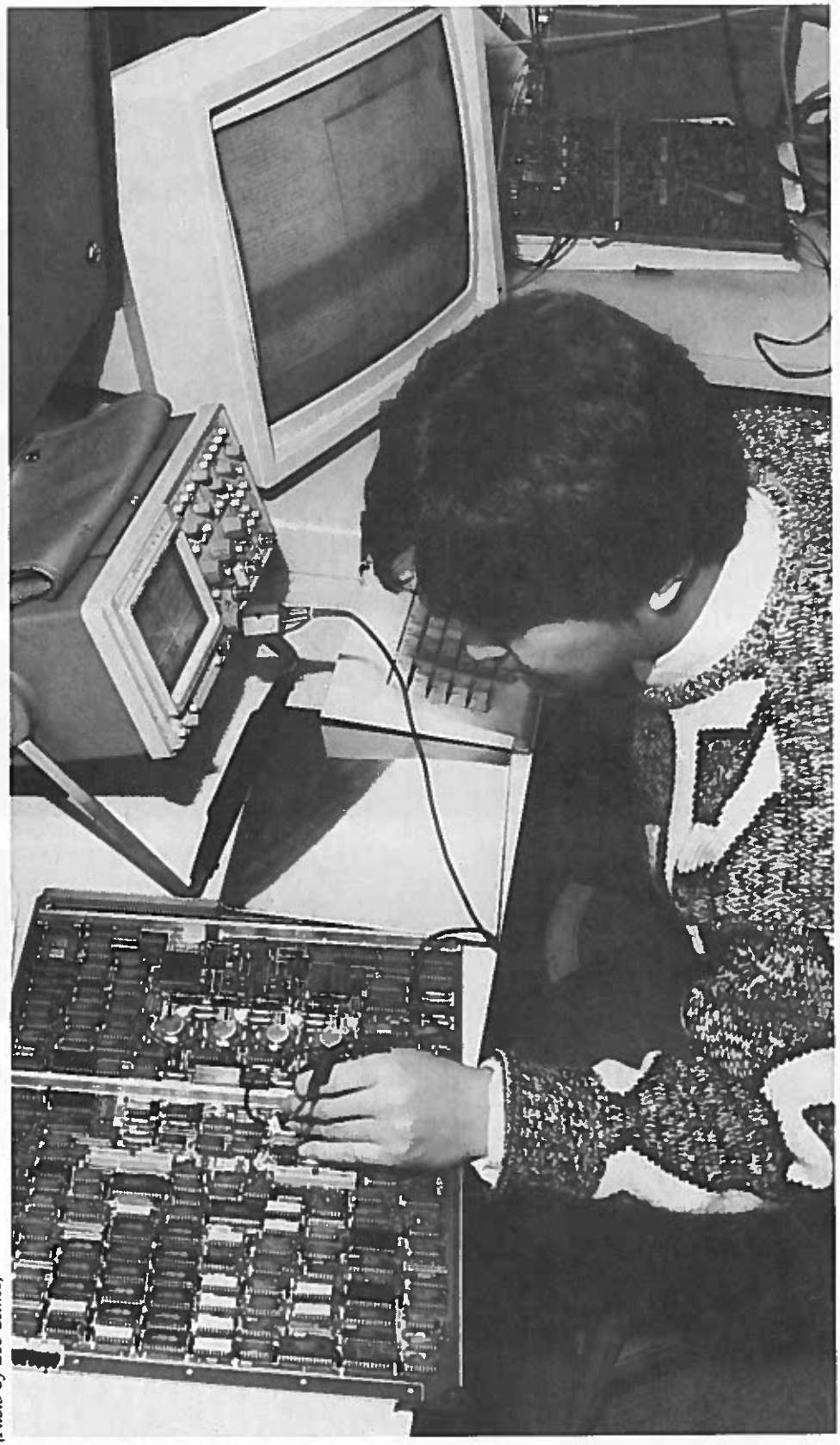
Social Security Tax Goes Up — Again

The Social Security payroll tax rate went up on New Year's Day for the 13th time in the past 25 years. The latest rate increase boosts the tax to 7.51 percent from 7.15 percent. It means American workers will pay an extra $36 to Social Security from each $10,000 they earn.

People who paid $2,000 in payroll taxes on $27,972 in wages in 1987 will have to pay $2,100 in payroll taxes on the same amount of earnings in 1988 — an increase of five percent. Employers must pay the same amount.

In 1988, people will pay the tax on income up to $45,000; the cutoff in 1987 was $43,800. The maximum tax on a person earning $43,800 in 1987 was $3,131.70. The tax on that same amount in 1988 will be $3,289.50 — $157.80 more than the maximum last year. That amounts to a 7.9 percent increase at the top.■

GrummanWorld
January 29, 1988



(Photo by Bob Settles)

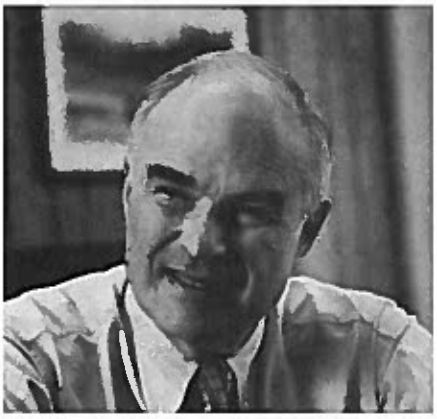
Can We Talk?

Assistant engineer Larry Hung of the Electronics Systems Division works on an interface card that will permit one data bus to talk to another. A data bus is a device that moves commands and information between computers and other electronic devices.

In the Design and Development Lab of the Test Equipment Products group in Melville, Long Island, Hung is helping develop a communication card that will allow Grumman's Intermediate Forward Test Equipment to run fault-finding tests on hardware that is equipped with a data bus.

This updated communication card has been under development for over a year. In a couple of months it will be ready to go into production.■

A Letter from the Chairman



I've always thought that an important part of a chief executive officer's job is to help get the next team in place, and then stay around just long enough to help it develop its own momentum. Timing is important: you have to do it promptly, and know when it's time to go.

And so, I am giving up my executive responsibilities at Grumman. I will remain as chairman of the board until August, when I will retire. I am doing this now because it's the right time.

Doing this a little ahead of schedule was not an easy decision. The years I have spent at Grumman have been happy and exciting for me. And, as I'm sure any Grumman retiree would tell me, rearranging your life and stepping back from something you care about is tough to do.

Still, knowing that the new management team is so well prepared to take over made my decision much easier. John O'Brien has determination, enthusiasm and integrity. But beyond that, he has an abundance of common sense. He always looks for the practical, sensible solution to the complicated problem. He has a long-term understanding of this company's operations and the technologies that are so important to it — and that's what makes him particularly well suited to guide Grumman through the next few years.

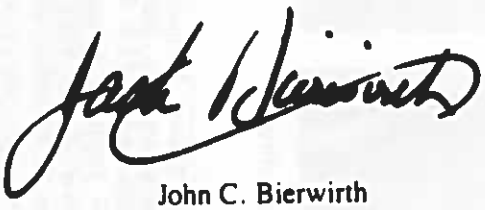
Today, when there is so much pressure on the defense budget — and so much pressure on defense companies to manage their operations superefficiently — the logical choice is someone with 30 years of experience in administration and operations.

And, of course, you need balance. You could find nine of the world's best first basemen, or nine of the best pitchers, and not have much of a baseball team. You need the right mix of skills. The office of the chairman includes Will Bischoff, vice chairman-Technology; Bob Freese, vice chairman-Finance, and Dan Huebner, vice chairman-Development. They will interact to make sure that we look at our problems and opportunities from every possible angle.

I have watched these four people work together for the past year or so. Their certainty and expertise dovetail very neatly in the daily direction of Grumman's policy formulation. And when you add in the operational management of the corporate vice presidents and the division presidents, the result is a very strong picture. It sure gives me confidence in Grumman's future.

I have some plans of my own. After my retirement in August, I may do some teaching. There are a couple of environmental groups that I'm interested in and hope to work for. I'll do some campaigning for George Bush, if he is nominated, and for Pat Moynihan, believing that they are the quality our country deserves and needs at this time in history.

That's still a few months off. There are some things to do at Grumman first, and I'll be meeting and talking with as many of you as I can before it's time for me to go.



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Chairman

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